



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
FEBRUARY 7, 2002 - 9:00 A.M.
C&T CONFERENCE ROOM**

Present:	L. E. Tibbits	G. D. Taylor	J. D. Culp
	P. F. Miller	T. E. Davies	J. W. Reincke
	T. Fudaly	S. Bower	
Guests:	K. Kennedy	C. Bleech	J. T. LaVoy
	L. Lynwood	B. Lower	J. Ruszkowski
	S. Thayer	T. Myers	D. L. Smiley
	M. Frankhouse	R. Rizzo	L. Galehouse
	A. Penzenstadler	R. White	

OLD BUSINESS

1. Approval of the Minutes of the January 3, 2002, Meeting - L. E. Tibbits

Minutes of the January 3, 2002, meeting were approved.

2. Addition of a Typical Sign Support Typical Plans - T. Myers

The typical for Cantilever Foundation Temporary Sheet Piling, VIII-290, was recommended for addition to the sign support typical plans following the inclusion of a new chart and subsequent reviews.

ACTION: Approval is given to add the typical to the sign support plans.

3. FHWA Approval of Specifications - T. Fudaly

Following the January EOC meeting, the department sent a letter to FHWA asking for clarification on their requested approval of certain construction specifications proposed for use on National Highway System projects. Tom Fudaly discussed the FHWA position and their need to approve certain specifications. He believes the existing stewardship agreement is vague and the approval authority is unclear. He is particularly concerned about frequently used special provisions. Tom would like to work with us on an easy way to identify what projects are exempt and which ones are not. It was agreed that clarification is needed.

ACTION: Gary Taylor will review the existing stewardship agreement with Larry Tibbits and will report back at the March EOC meeting. A group will be formed to update and reissue the agreement, as needed.

4. **Research Report, *Guidelines for 4-Lane to 3-Lane Conversion* - T. Myers**

Tom noted that the conclusions were rewritten to leave options up to the regions. Larry Tibbitts asked that the full report be distributed for a final review and come back next month for approval.

ACTION: Tabled until the March meeting.

NEW BUSINESS

1. **Subcommittee on Aesthetics Status Report - L. Lynwood/S. Thayer**

Lynn Lynwood and Scott Thayer provided an extensive review of the activities and progress of the Subcommittee on Aesthetics. The committee has made great strides in the identification of milestone needs and developmental initiatives. They have identified what projects in the 5 Year Plan are still eligible for aesthetic improvements. They have developed visual resource guidelines, a bridge scoping checklist, an aesthetic “tool kit” oriented toward fix type, a project evaluation tool to assist the regions/TSCs in determining the best investments for aesthetic improvements, and are developing new barrier design standards.

Two major initiatives in the future will be to assist the regions in developing a “Corridor Vision Plan” and creating a formal “Aesthetic Design Guide” document.

The subcommittee will continue to report their progress to EOC.

2. **Local Government Bituminous Selection Guidelines - M. Frankhouse**

The guidelines have been updated to include Superpave mixtures. Design criteria now include changes in asphalt binders and aggregate wear index. The revised selection guidelines were developed in cooperation with the County Road Association of Michigan (CRAM) and were review by their members, industry representatives, and the Pavement Committee.

ACTION: The guidelines will be revised as discussed. A letter of formal acceptance will be requested from CRAM. The guidelines will be returned to EOC for final approval.

3. **Evaluation Report of Michigan’s Capital Preventative Maintenance (CPM) Program - L. Galehouse**

The report represents 3 years of evaluation and is one of the most comprehensive studies of preventative maintenance treatments anywhere. It evaluates 12 treatment types placed from 1994 to 2000. Some of the evaluated treatments include chip seals, crack seals,

microsurfacing, concrete repairs, bituminous overlays, and concrete joint resealing. The report identifies the extended service life values of each treatment, compares field conditions to PMS data, assesses each treatment's specification requirements, and provides conclusions on the adequacy of each treatment. Most all of the treatments equaled or exceeded the average Extended Service Life values in the CPM Program guidelines.

The report is not yet in publishable form and requires editing. It was presented for information only at this time. The full report will be submitted to EOC at a later date for a thorough review and approval of action items.

4. **Evaluation of Sealers/Rejuvenating Agents - L. Galehouse**

The department is invited to participate in a collaborative research study involving five different research agencies from across the country to evaluate the effectiveness of sealers and rejuvenating agents. Our participation will require providing at least two test sections and field support. We will be obligated to layout the test sections, provide traffic control, produce cores for research agency evaluation, and arrange for product application. The duration of the project will be about six years. Evaluations will be conducted every two years.

The project was reviewed by the Pavement Committee with a recommendation to participate in the study using a Superpave low volume roadway for a test site.

ACTION: EOC approves participating in the sealers/rejuvenating agents study. A list of proposed sites will be given to Thom Davies for region review.

5. **Mid-Panel Cracking of Jointed Plain Concrete Pavement (JPCP) - D. L. Smiley**

A presentation was made to explain the JPCP issues that are pertinent to the ongoing discussion on changing the department's pavement standard and to provide guidelines on future JPCP projects.

The department's research program has been investigating the causes for mid-panel cracking on some JPCP projects constructed since 1995. There are three factors involved in this distress, which initiates from the top down. Dr. Will Hansen of the University of Michigan made a presentation on the results of this investigation at the 2002 TRB Annual Meeting. The session was well received and supported similar results reported by PennDOT.

6. **Research Report R-1408, *A-588 Bride Mounted Sign Failure Investigation* - J. W. Reincke**

The Structural Research Unit was asked to assist Metro Region by investigating the failure of a bridge mounted sign support. Their forensic action revealed that pack rust had developed between the support's connection angle and the A-588 steel beam. The pack rust

stripped the nuts off the bolts. The investigation prompted a statewide inspection of all similar sign supports and we found a recurring problem with A-588 steel bridge beams. Several sign supports were found to be failing in the same mode and were replaced according to research's recommendations. Action items in the report have been implemented or are being addressed by the regions, the Traffic and Safety Division, and bridge inspectors.

ACTION: The report is approved for distribution.

7. **Drainage Design and Storm Water Management Manual (For Information Only) - P. F. Miller**

A consultant contract has been approved for developing a "Drainage Design and Storm Water Management Manual." The purpose of the manual is to provide a contract, reference and training document for MDOT designers, operations personnel, and design consultants on MDOT's policy and procedure in the design and operation of drainage facilities. It will also cover utilization of the best management practices needed to meet MDOT's Storm Water Management Program goals and storm water permit(s) requirements. The manual will be an electronic, interactive training device and will be referenced in consultant design contracts.

ACTION: Gary Croskey of the Design Division will organize a Manual Review Team, which will include candidates nominated by the region engineers and division administrators.

8. **Update on the 2003 Standard Specifications for Construction Book (For Information Only) - J. Ruszkowski**

Progress continues as the book is being prepared for review in the active voice. (Division 1 will not be converted to active voice. It is scheduled to go to the printer by the end of the year and will be available early in 2003. The new book will be posted to the web while it is out for printing.

9. **Pavement Selection, M-53 New Construction: CS 50015, JN 46273/Bituminous Pavement Selection - K. Kennedy**

The construction alternates considered were a bituminous pavement (Alternate 1/EUAC \$27,178/km), and a jointed plain concrete pavement (Alternate 2/EUAC \$28,641/km).

A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis summary are as follows:

G. J. Rosine	R. J. Risser, Jr. (MCPA)	L. Stornant	T. L. Nelson
C. T. Maki	A. C. Milo (MRBA)	J. Ruszkowski	R. D. Till
R. J. Lippert, Jr.	J. Becsey (MAPA)	C. Libiran	M. Frierson
M. Nystrom (AUC)	D. Hollingsworth (MCA)	G. J. Bukoski	C. W. Whiteside
M. Newman (MAA)	J. Steele (FHWA)	K. Rothwell	T. E. Myers
J. Murner (MRPA)	K. Peters	T. Phillips	D. L. Smiley